



(19) Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 859 492 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
11.08.1999 Bulletin 1999/32(51) Int. Cl.⁶: H04L 12/56, H04L 29/06(43) Date of publication A2:
19.08.1998 Bulletin 1998/34

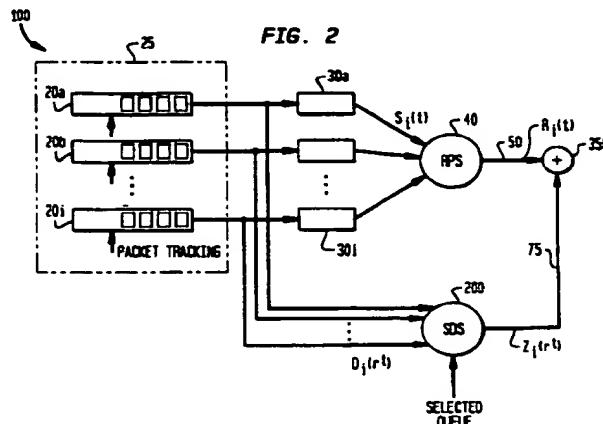
(21) Application number: 98300754.3

(22) Date of filing: 03.02.1998

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SEDesignated Extension States:
AL LT LV MK RO SI(30) Priority: 07.02.1997 US 37844 P
18.11.1997 US 972424(71) Applicants:
• LUCENT TECHNOLOGIES INC.
Murray Hill, New Jersey 07974-0636 (US)
• AT&T Corp.
New York, NY 10013-2412 (US)(72) Inventors:
• Duffield, Nicholas G.
Hoboken, New Jersey 07030 (US)
• Stiliadis, Dimitrios
Middletown, Monmouth, NJ 07748 (US)
• Lakshman, Tirunellai Viswanathan
Eatontown, Monmouth, New Jersey 07724 (US)(74) Representative:
Buckley, Christopher Simon Thirsk et al
Lucent Technologies (UK) Ltd,
5 Mornington Road
Woodford Green, Essex IG8 0TU (GB)

(54) Fair queuing system with adaptive bandwidth redistribution

(57) Apparatus for routing packets in a communication network comprises a plurality (100) of per-connection queues (20a-20i), each queue established for receiving packets from a respective source and temporarily storing received packets before routing to a particular destination; a weighted fair-queuing scheduler (40) for servicing packets from each of the plurality of per-connection queues at guaranteed pre-allocated rates; a sensing device for sensing a presence or absence of packets in queues, the absence of packets in queues indicating availability of excess bandwidth; and, a state dependent scheduler (200) for redistributing excess bandwidth upon sensing of queues absent packets, the state dependent scheduler (200) servicing those queues in accordance with a state variable corresponding to a performance property of the queues, wherein delay and isolation properties for routing packets of respective queues in weighted fair-queuing is preserved.





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EUROPEAN SEARCH REPORT

Application Number
EP 98 30 0754

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)															
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim																
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A	CLARK D D ET AL: "Supporting Real-Time Applications in an Integrated Services Packet Network: Architecture and Mechanism" PROCEEDINGS OF ACM SIGCOMM '92 CONFERENCE, vol. 22, no. 4, 17 - 20 August 1992, pages 14-26, XP002105398 BALTIMORE (US) * page 21, left-hand column, line 27 - page 25, left-hand column, line 63 *	1-6																
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)															
			H04L H04Q															
<p>The present search report has been drawn up for all claims</p> <table border="1"> <tr> <td>Place of search</td> <td>Date of completion of the search</td> <td>Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>9 June 1999</td> <td>Eraso Helguera, J</td> </tr> <tr> <td colspan="3">CATEGORY OF CITED DOCUMENTS</td> </tr> <tr> <td colspan="3"> <input checked="" type="checkbox"/> particularly relevant if taken alone <input checked="" type="checkbox"/> particularly relevant if combined with another document of the same category <input type="checkbox"/> technological background <input type="checkbox"/> non-written disclosure <input type="checkbox"/> intermediate document </td> </tr> <tr> <td colspan="3"> T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document </td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	9 June 1999	Eraso Helguera, J	CATEGORY OF CITED DOCUMENTS			<input checked="" type="checkbox"/> particularly relevant if taken alone <input checked="" type="checkbox"/> particularly relevant if combined with another document of the same category <input type="checkbox"/> technological background <input type="checkbox"/> non-written disclosure <input type="checkbox"/> intermediate document			T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		
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T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document																		

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 30 0754

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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